

## **CLAIMS:**

1. Method of preloading a tapered roller bearing (1) secured with a conical seat on a tapering roll neck (3) of a roll (2), in particular, a back-up roll, arranged in a roll stand by means of a chock (4), by application of a hydraulic pressure thereto,

### **characterized in that**

the bearing inner ring (18), rollers, (17) and the bearing outer ring (13) of the tapered roller bearing (1) are subjected to pressure produced during rolling and are preloaded against the roll (2).

2. Method according to claim 1,

### **characterized in that**

the tapered roller bearing (1) is preloaded with a pre-set hydraulic pressure.

3. Method according to claim 1,

### **characterized in that**

the tapered roller bearing (1) is preloaded in a controlled manner dependent on the rolling force.

4. A device for preloading a tapered roller bearing (1) secured with a conical seat on a tapering roll neck (3) of a roll (2), in particular, a back-up roll, arranged in a roll stand by means of a chock (4), by application of a hydraulic pressure thereto, for effecting the method according to one of claims 1 through 3,

**characterized in that**

an annular pressure-applying device (5) is supported on the roll (2) by an axial bearing (9) provided on the roll end neck (8), is arranged against the bearing outer ring (13) of the tapered roller bearing (1) and, upon application of pressure, displaces the chock (4) with the bearing outer ring (13) in a direction toward the roll body (15) or the roll (2) in an opposite direction.

5. A device according to claim 4,

**characterized in that**

the pressure-applying device (5) is a ring-shaped cylinder (7) with a plurality of separate pistons (6).

6. A device according to claim 4,

**characterized in that**

the pressure-applying device (5) is an annular piston.

7. A device according to one of claims 4 through 6,

**characterized in that**

the pressure-applying device (5) and the axial bearing (9) are arranged in the chock (4).

8. A device according to one of claims 4 through 7,

**characterized in that**

between the pressure-applying device (5) and the bearing outer ring (13) of the tapered roller bearing (1), a thrust ring (11) is provided.

9. A device according to claim 8,

**characterized in that**

the thrust ring (11) is formed as an extending radially inwardly collar (12) formed as one-piece with the chock (4).